Almas Shintemirov

Curriculum Vitae (updated 11/2019)

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PERSONAL INFORMATION

Born in 1979, nationality: Kazakhstan, marital status: married (2 children)
Languages: Russian (native), English (fluent), Kazakh (intermediate)

EXPERIENCE

Sept 2019 – present	**External Acting Chair,** Department of Electrical and Computer Engineering Nazarbayev University, Astana, Kazakhstan
2011 – present	**Associate Professor,** Department of Robotics and Mechatronics, Nazarbayev University, Astana, Kazakhstan (2011–2015 – Assistant Professor)
2009 – 2011	**Senior Researcher,** Department of Intellectual Systems and Energy Efficiency (since 2011), PI "Nazarbayev University Research and Innovation System" (NURIS) **Senior Manager,** Directorate for Scientific and Technical Projects (until Aug' 2010 – Department for Academic Development) JSC "Nazarbayev University", Kazakhstan
2005 – 2009	**Graduate Teaching Assistant (part-time),** Department of Electrical Engineering and Electronics, the University of Liverpool, U.K.
2004 – 2005	**Lecturer,** Department of Electric Power Engineering, Pavlodar State University, Kazakhstan

EDUCATION

2005 – 2009	**Ph.D. in Electrical Engineering and Electronics**, The University of Liverpool, the United Kingdom.
2001 – 2004	**Candidate's (Ph.D) Degree in Technical Sciences** (Electrotechnical Complexes and Systems), Pavlodar State University, Kazakhstan
1996 – 2001	**Engineer's Specialist Diploma with Honours (**Electric Drives and Automation of Technological Complexes (equivalent to M.Eng. degree)), Pavlodar State University, Kazakhstan

CURRENT RESEARCH INTERESTS

- Motion planning of autonomous vehicles and mobile robots
- Robot-manipulator control for Intelligent automation applications
- Spherical parallel manipulator based mechanisms design and control
- Wearable and rehabilitation robotic system design and analysis
- Computation intelligence for system parameter identification, condition monitoring and decisions making

FUNDED RESEARCH AND INDUSTRIAL PROJECTS

2020 – 2022 **Co-Principal investigator:** "Stochastic and Learning-Based Predictive Control Methods for Physical Human-Robot Interaction".

- Project proposal peer-reviewed through ORAU (http://www.orau.org) and funded through the Collaborative Research Grant program by Nazarbayev University (382,920 USD).

2019 **Co-Principal investigator:** "Development of a Robotized Vehicle on a KAMAZ Truck Chassis".

- Industrial project funded by the VIST Group company (Russia) (http://vistgroup.ru/en/solutions/robotizirovannaya-tekhnika/) (130,000 USD).

2018 – 2020 **Principal investigator:** "Development of an Intelligent Assistive Robot Manipulation System for Improving the Quality of Life of Disabled People in Kazakhstan".

- Project proposal peer-reviewed through ORAU (http://www.orau.org) and funded through the Faculty Development Competitive Research Grant program by Nazarbayev University (149,310 USD).

2014 – 2016 **Principal investigator:** "Research of Possible Applications of Renewable Energy for Development of Small/Mobile Autonomous Systems".

- Project funded through the target funding scheme by the Kazakhstan Ministry of Education and Science (about 200,000 USD).

2012 –2014 **Principal investigator:** "Design and Control of a Gyro Stabilized Pan-Tilt Sensor System with Novel Multiple Object Tracking Algorithms"

- Project proposal peer-reviewed through ORAU (http://www.orau.org)
- Research project grant from the Kazakhstan Ministry of Education and Science (about 90,000 USD).

2012 – 2013 **Co-Principal investigator (initial stage):** "Enhanced Object Manipulation Using Multigrasp Robotic Hand for Intelligent Industrial Automation"

- Research grant awarded within the joint Kazakhstan Technology Commercialization Project of the Kazakhstan Ministry of Education and Science and the World Bank

2012 – 2013 **Co-Principal investigator:** "Hybrid Quadruped Robotic Platform for Investigation of Synergistic Legged and Wheeled Locomotion",

- Research project grant from the Kazakhstan Ministry of Education and Science

2012 **Principal investigator:** "Investigation of Sensor Fusion Algorithms with a Pan-Tilt LIDAR System"**.** Nazarbayev University seed research grant (20,000 USD)

2011 **Co-Principal investigator (Phase 1):** "Study and Development of Renewable Energy and Smart Grid Technologies With Purpose of Potential Application in Kazakhstan"

- Project peer-reviewed through ORAU (http://www.orau.org)
- Funded by the Kazakhstan Ministry of Education and Science for funding within the 2011 research projects portfolio of NURIS.

2008 **Principal investigator:** "Analysis and Application of Artificial Intelligence Techniques for Modeling and Condition Assessment of Power System Apparatus (on the Example of Power Transformers)"

- Funded by JCS "Science Fund" within the frame of the "Sharyktau" competition (8,000 USD)

AWARDS

2018	**Kazakhstan Scopus Award 2018 - Top Researcher in Engineering and Technologies.** (administered by Elsevier)
2017	**The Certificate of Merit of the Republic of Kazakhstan** A state award for "…achievements in state and public activities, significant contribution to the social-economic and cultural development of the country, strengthening friendship and cooperation among nations"
2005 – 2009	**Kazakhstan Presidential Bolashak Scholarship** (administered by JSC "Center for International Programs", the Kazakhstan Ministry of Education and Science)
2008	**"Sharyktau-2008" competition award** for young Kazakhstan scientists on innovation research in the "Information and Space Technologies" direction (administered by JCS "Science Fund", Astana, Kazakhstan)
2004 – 2006	**Young scientists' Kunaev award for best research works in fundamental sciences** (administered by the Kazakhstan Ministry of Education and Science)

PROFESSIONAL DEVELOPMENT/TRAINING

Sept. 2017	Summer School on Foundations of Robotics and Autonomous Learning, TU Berlin, Germany
July 2013	Telerobotics Summer School 2013, Keio University, Japan
April 2011	Energy Training Week, International Energy Agency, Paris, France
April 2011	Workshop "The Use of Learning Outcomes in Higher Education" within the TEMPUS project "Chemical Engineering Curriculum Development and International Recognition", Astana, Kazakhstan
Nov. 2010	2nd Science & Technology Training & Education Program for KISTEP-NIF JOINT PROJECT on Foresight Research, Astana

PROFESSIONAL AFFILIATION

2012 – present Member of the IEEE Robotics and Automation Society

ACADEMIC SERVICE

Research publication peer-review activity

IEEE Robotics and Automation Letters

IEEE/ASME Transactions on Mechatronics

IEEE Transactions on Industrial Electronics

Robotics and Autonomous Systems

ASME Journal of Mechanical Design

International Journal of Advanced Robotic Systems

Neural Computing and Applications

2014, 2016 IEEE/ASME Conference on Mechatronics and Embedded Systems (MESA)

2015, 2014 American Control Conferences

2013, 2014 Kazakhstan National Center of Science and Technology Evaluation, peer-reviewing research grant proposals submitted for funding and annual reports being funded by government.

Organized or chaired sessions

- Chair of the regular session SuBT9 "Mechanism Design" at the 2019 IEEE 15th International Conference on Automation Science and Engineering (CASE), Vancouver, Canada, August 2019

- Chair of the regular session ThAT6 “Kinematics” at the 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Besançon, France, July 2014

Nazarbayev University (NU), Astana, Kazakhstan (instruction in English):

Dept. of Electrical and Computer Engineering (as an external acting chair)

- ❖ Dealing with dept. faculty and student-related issues;
- ❖ Member of the board of the School of Engineering and Digital Sciences (SEDS);
- ❖ Revision and modification of PhD in Electrical Engineering, MSc in Electrical and Computer Engineering and BENG in Electrical and Computer Engineering program curricula;
- ❖ Development of the dept. laboratory infrastructure.

Dept. of Robotics and Mechatronics:

- ❖ One out of three founding faculty members of the dept. who were setting up BSc in Robotics and Mechatronics (R&M) program and robotics research program at Nazarbayev University;
- ❖ Assisting in developing MSc in Robotics program;
- ❖ Development course contents and teaching the following R&M graduate courses:
  - *Industrial Robotics (Fall 2019, 2018, 2017, 2016);*
  - *Hardware/Software Co-Design (Spring 2020, 2019, 2018, 2017, 2016);*
  - *Master projects supervision (Spring 2020, 2019. 2017, Fall 2016);*
- ❖ Development course contents and teaching the following R&M undergraduate courses:
  - *Robotic/Mechatronic System Design (Spring 2018, 2017, 2016, 2015);*
  - *Graduate projects supervision (Spring 2018, 2017, 2016, 2015);*
  - *Microcontrollers with Lab (Spring 2019, 2015, 2013, 2014);*
  - *Embedded Systems (Fall 2019, 2018, 2017, 2016, 2015, 2014, 2013);*
  - *Signals and Sensing with Lab (Fall 2014);*
  - *Electric and Electronic Circuits II with Lab (Lab sessions, Spring 2013,2014);*
  - *Computer Aided Drawing (Fall 2012, Summer 2012);*
  - *Introduction to Robotics and Mechatronics (Fall 2012, Fall 2011);*
  - *Programming to Robotics and Physics (Lab sessions, Spring 2012);*
  - *Freshman Robotics Colloquium (Spring 2012);*
- ❖ Development high school course “Fundamentals of Robotics” and training high school teachers for Nazarbayev Intellectual Schools (www.nis.edu.kz) *(Summer 2012);*
- ❖ Academic advising of Robotics students;
- ❖ Tutoring students on individual basis during office hours;
- ❖ Supervising PhD, master and undergraduate student research and graduation projects (Spring 2015 – present).
- ❖ Representative of the R&M Department in/during:
  - *School Research Committee (2018 - 2019)*
  - *School Teaching and Learning Committee (2015 – 2018)*
  - *School Library Committee (2011 – 2012);*
  - *School Website Development Committee (2013 – 2014);*
  - *Member of various tender commissions for procurement of teaching and research equipment (2011- present);*
  - *Presentation of the R&M laboratories and projects during VIP guest visits to NU including visits of President of the Republic of Kazakhstan N. Nazarbayev (2018, 2012), Prime Minister of the Russian Federation D. Medvedev (2013), groups of top Kazakhstan government officials (2019, 2018, 2012, 2013), senior Kazakhstan army officers (2013), guest international academics, high school and college students etc.*
- ❖ Service within the R&M Department:
  - *Member of Departmental Curriculum Committee (2011- present);*
  - *Member of Departmental Recruitment Committee (2011- present);*
  - *Education/research equipment and consumables selection and procurement facilitating*

(2011- present) including work on compiling and translating tender technical specification and documentation to Russian language;
- *Facilitating visits to the department and presentation of research projects to NU visitors (2011-present);*
- *Facilitating visits to the department of and delivering introductory talks to Nazarbayev Intellectual School students (2011-present);*
- *Organizing and supervising field trip visits for Robotics students to local industrial enterprises (2012-2013);*
- *Assisting senior faculty members in research and organization work;*
- *Responding* to various requests from the School and the University administration.

External service activities (in English and Russian)

❖ Representative of Nazarbayev University in:
- *Round tables on Kazakhstan Industry 4.0 program development (2017)*
- *Working tables of Smart Astana concept development (2017)*
- *Supervisory Board of NURIS (2016 – present)*
- *External member of PhD dissertation councils at Eurasian National University (2019, 2015) and Pavlodar State University (2016-present)*
- *Chair of State Examination Committee for undergraduate state exams and graduation project evaluation at Eurasian National University (2015)*
- *Chair of State Examination Committee for master state exams and thesis project evaluation at Kazakh Agro-Technical University (2016-2017)*
- *NU Equipment Committee (2014-2016);*
- *The University Senate (2012-2013 academic year);*
- *The University Academic Council (nominated by the University Senate as the SST faculty representative in the AC for 2012-2013 academic year*);

At the University of Liverpool, U.K.:

❖ Assistance and co-supervision of undergraduate students during computer and electrical laboratory sessions:
- *Introduction to Java programming;*
- *Electronic and Electric Circuit Design;*
- *Electric Machines;*
- *Feedback Control Systems;*
- *Power Transmission Systems;*
- *Year 1 and 2 course projects.*

At Pavlodar State University, Kazakhstan (in Russian):

❖ Development course contents and teaching the following undergraduate courses:
- *Control Systems of Electric Drives;*
- *Electric Power Systems;*
- *Computer Modeling in Electrical Engineering;*
- *Fundamentals of Microprocessor Systems;*

❖ Assisting undergraduate and postgraduate students in course, final and research projects.

ADMINISTRATIVE EXPERIENCE

At Nazarbayev University (NU), Astana, Kazakhstan in 2009 – 2010 (English and Russian):

❖ Project management on establishing Nazarbayev University, including projects of establishing the Center for Energy Research (CER) (currently – Nazarbayev University Research and Innovation System (NURIS)) and the School of Engineering (first development phase) at NU.

❖ Establishment of physics, chemistry and biology teaching laboratories as part of the new Foundation Program in cooperation with University College London, U.K.

❖ Business negotiation and correspondence with international universities (Lawrence Berkeley

National Laboratory (LBNL) at UC Berkeley, USA, and University College London, U.K.), organizations and industry – partners of NU for establishing CER and NU School of Engineering, preparation of strategic, analytical, budget and legal documentation, etc.

- ❖ Other technical projects coordination, participation and representing NU at conferences and seminars on renewable energy policy, ministry working groups on draft legislation development, international cooperation in power engineering, etc.
- ❖ Other technical projects coordination, including a project of establishing a 1 MW solar station in the NU campus sponsored by the Government of Japan within the "Cool Earth" programme grant.

LIST OF PUBLICATIONS

Google Scholar citation report of research publications
http://scholar.google.com/citations?user=D7WWMgEAAAAJ&hl=ru&oi=ao

❖ PEER-REVIEWED JOURNALS

1. M. Rubagotti, T. Taunyazov, B. Omarali, **A. Shintemirov**, Semi-Autonomous Robot Teleoperation with Obstacle Avoidance via Model Predictive Control, *IEEE Robotics and Automation Letters*, vol. 4(3): 2746 – 2753, 2019
2. Y. Raziyev, R. Garifulin, **A. Shintemirov**, T.D. Do, Development of a Power Assist Lifting Device with a Fuzzy PID Speed Regulator, *IEEE Access*, vol. 7: 30724 – 30731, 2019 (IF 3.557)
3. T. Taunyazov, M. Rubagotti, **A. Shintemirov**, Constrained Orientation Control of a Spherical Parallel Manipulator via Online Convex Optimization, *IEEE/ASME Transactions on Mechatronics*, Vol. 23 (1): 252-261, 2018. (IF 4.357)
4. A. Khakimova, A. Kusatayeva, A. Shamshimova, D. Sharipova, A. Bemporad, Y. Familiant, **A. Shintemirov**, V. Ten, M. Rubagotti, Optimal Energy Management of a Small-Size Building via Hybrid Model Predictive Control, *Energy and Buildings*, vol. 140: 1 – 8, 2017 (IF 4.067)
5. **A. Shintemirov,** A. Niyetkaliyev, M. Rubagotti, Numerical Optimal Control of a Spherical Parallel Manipulator Based on Unique Kinematic Solutions, *IEEE/ASME Transactions on Mechatronics*, Vol 21 (1): 98-109, 2016. (IF 4.357)
6. K. Telegenov, Y. Tlegenov, S. Hussain, **A. Shintemirov,** Preliminary Design and Analysis of a Three Finger Underactuated Adaptive End Effector with a Breakaway Clutch Mechanism, *Journal of Robotics and Mechatronics*, vol. 27(5): 496 – 503, 2015
7. K. Telegenov, Y. Tlegenov, **A. Shintemirov,** A Low-Cost Open-Source 3-D Printed Three-Finger Gripper Platform for Research and Educational Purposes, *IEEE Access*, vol. 3: 638 – 647, 2015. (IF 3.244)
8. **A. Shintemirov,** Mathematical Morphology Based Reference Signals Generation for Active Power Filters, *Electronics Letters*, IET, 2013, vol. 49 (10), May 2013. (IF 1.155)
9. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Transformer Core Parameter Identification Using Frequency Response Analysis, *IEEE Transactions on Magnetics*, vol. 46 (1): 141-149, 2010. (IF 1.243)
10. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Transformer Winding Condition Assessment Using Frequency Response Analysis and Evidential Reasoning, *IET Electric Power Application*, vol. 4(3): 198 – 212, 2010. (IF 1.865)
11. **A. Shintemirov**, W.J. Tang, W.H. Tang, Q.H. Wu, Improved Modeling of Power Transformer Winding Using Bacterial Swarming Algorithm and Frequency Response Analysis, *Electric Power Systems Research*, Elsevier, vol 80 (9): 1111-1120, 2010. (IF 2.688)

12. **A. Shintemirov**, W.H. Tang, Q.H. Wu, A Hybrid Winding Model of Disc-Type Power Transformers for Frequency Response Analysis, *IEEE Transactions on Power Delivery*, vol. 24 (2): 730 – 739, 2009. (IF 3.218)
13. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Power Transformer Fault Classification Based on Dissolved Gas Analysis by Implementing Bootstrap and Genetic Programming, *IEEE Transactions on Systems, Man, and Cybernetics-Part C*, vol. 39 (1): 69 – 79, 2009. (IF 2.17)
14. Z. Yang, W.H. Tang, **A. Shintemirov**, Q.H. Wu, An Association Rule Mining-based Dissolved Gas Analysis for Fault Classification of Power Transformers, *IEEE Transactions on Systems, Man, and Cybernetics-Part C*, vol. 39 (6):597 – 610, 2009. (IF 2.17)

❖ PEER-REVIEWED CONFERENCE PAPERS

1. S. Rakhimkul, A. Kim, A. Pazylbekov, **A. Shintemirov**, Autonomous Object Detection and Grasping Using Deep Learning for Design of an Intelligent Assistive Robot Manipulation System, *IEEE International Conference on Systems, Man and Cybernetics (IEEE SMC2019)*, Italy, 2019
2. I. Tursynbek, A. Niyetkaliyev, **A. Shintemirov**, Computation of Unique Kinematic Solutions of a Spherical Parallel Manipulator with Coaxial Input Shafts, *IEEE International Conference on Automation Science and Engineering (CASE2019)*, Canada, 2019
3. M. Rubagotti, T. Taunyazov, B. Omarali, **A. Shintemirov**, Semi-Autonomous Robot Teleoperation with Obstacle Avoidance via Model Predictive Control, *Robotics: Science and Systems (RSS2019)*, Germany, 2019
4. A. Oleinikov, B. Abibullaev, **A. Shintemirov**, M. Folgheraiter, Feature Extraction and Real-Time Recognition of Hand Motion Intentions from EMGs via Artificial Neural Networks, *The 6th International Winter Conference on Brain-Computer Interface (BRAIN)*, South Korea, 2018.
5. B. Omarali, T. Taunyazov, A. Bukeyev, **A. Shintemirov**, Real-Time Predictive Control of an UR5 Robotic Arm Through Human Upper Limb Motion Tracking, *The 2017 ACM/IEEE International Conference on Human-Robot Interaction (HRI2017)*, Austria, 2017.
6. D. Nurseitov, A. Serekov, **A. Shintemirov**, B. Abibullaev, Design and Evaluation of a P300-ERP based BCI System for Real-Time Control of a Mobile Robot, *The 5th International Winter Conference on Brain-Computer Interface*, South Korea, 2017.
7. **A. Shintemirov**, B. Omarali, F. Muratov, M. Issa, Sh. Salakchinov, T. Alizadeh, Y. Familiant, A Sensorless MPPT-based Solar Tracking Control Approach for Mobile Autonomous Systems, *42nd IEEE Industrial Electronics Conference (IEEE IECON2016)*, Italy, 2016.
8. T. Taunyazov, B. Omarali, **A. Shintemirov**, A Novel Low Cost 4-DOF Wireless Human Arm Motion Tracker System, *6th IEEE RAS&EMBC International Conference on Biomedical Robotics and Biomechatronics (BioRob2016)*, Singapore, 2016.
9. N. Omarkulov, K. Telegenov, M. Zeinullin, I. Tursynbek, **A. Shintemirov**, Preliminary Mechanical Design of NU-Wrist: a 3-DOF Self-Aligning Wrist Rehabilitation Robot, 6t*h IEEE RAS & EMBC International Conference on Biomedical Robotics and Biomechatronics (BioRob2016)*, Singapore, 2016.
10. B. Omarali, T. Taunyazov, A. Nyetkaliyev, **A. Shintemirov**, System Integration of a Solar Sensor and a Spherical Parallel Manipulator for a 3-Axis Solar Tracker Platform Design, *2015 IEEE/SICE International Symposium on System Integration*, Nagoya, Japan, 2015.
11. N. Omarkulov, K. Telegenov, M. Zeinullin, **A. Shintemirov**, Underactuated Anthropomorphic Finger Design and Analysis for Hand Prosthetics, *37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, Milano, Italy, 2015.
12. A. Khakimova, A. Shamshimova, D. Sharipova, A. Kusatayeva, V. Ten, A. Bemporad, Y. Familiant, **A. Shintemirov**, M. Rubagotti, Modeling and Hybrid Model Predictive Control of a Smart House, *2015 IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC)*, Rome. Italy, 2015.

13. A. Niyetkaliyev, **A.Shintemirov,** An Approach for Obtaining Unique Kinematic Solutions of a Spherical Parallel Manipulator, *The IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM2014)* , Besancon, France, July 2014.
14. Y. Tlegenov, K. Telegenov, **A. Shintemirov,** An Open Source 3D Printed Underactuated Robotic Gripper, *The 10th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications (MESA'14)*, Senigallia, Italy, September 2014.
15. A. Begalinova, **A. Shintemirov**, Design of Embedded Gesture Recognition System for Robotic Applications, *2014 IEEE 8th International Conference on Application of Information and Communication Technologies (AICT2014),* Astana, Kazakhstan, 2014.
16. K. Telegenov, Y. Tlegenov, **A. Shintemirov,** An Underactuated Adaptive 3D Printed Robotic Gripper, *10th France – Japan Congress,8th Europe – Asia Congress on Mecatronics*, Japan, November, 2014.
17. Y. Ponomarenko, B. Aubakir, Sh. Hussain, **A. Shintemirov,** An End-Effector Based Upper-Limb Rehabilitation Robot: Preliminary Mechanism Design, *10th France – Japan Congress,8th Europe – Asia Congress on Mecatronics*, Japan, November, 2014.
18. Zh. Kappassov, Y. Khassanov, A. Saudabayev, **A. Shintemirov**, H.A. Varol, Semi-Anthropomorphic 3D Printed Multigrasp Hand for Industrial and Service Robots, *The IEEE International Conference on Mechatronics and Automation (ICMA2013),* Takamatsu, Kagawa, Japan, August 2013.
19. A. Saudabayev, Y. Khassanov, **A. Shintemirov**, H.A. Varol, An Intelligent Object Manipulation Framework for Industrial Tasks, *The IEEE International Conference on Mechatronics and Automation (ICMA2013),* Takamatsu, Kagawa, Japan, August 2013.
20. **A. Shintemirov,** Reference Signals Generation for Active Power Filter Compensation Using Mathematical Morphology. *2013 Fourth International Conference on Power Engineering, Energy and Electrical Drives (POWERENG),* Istanbul, Turkey, May 2013.
21. **A. Shintemirov,** Modeling of Power Transformer Winding Faults for Interpretation of Frequency Response Analysis (FRA) Measurements. *2013 Fourth International Conference on Power Engineering, Energy and Electrical Drives (POWERENG),* Istanbul, Turkey, May 2013.
22. W.H Tang, **A. Shintemirov,** Q.H. Wu**,** Detection of Minor Winding Deformation Fault in High Frequency Range for Power Transformer, in: *Proceedings of the 2010 IEEE Power & Energy Society General Meeting*, 2010, 6 c.
23. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Construction of Transformer Core Model for Frequency Response Analysis with Genetic Algorithm, in: *Proceedings of the 2009 IEEE Power & Energy Society General Meeting*, Calgary, Alberta, Canada, 2009, 5 p.
24. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Genetic Programming Feature Extraction with Bootstrap for Dissolved Gas Analysis of Power Transformers, in: *Proceedings of the 2009 IEEE Power & Energy Society General Meeting*, Calgary, Alberta, Canada, 2009, 6 p.
25. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Modeling of a Power Transformer Winding for Deformation Detection Based on Frequency Response Analysis, in: *Proceedings of the 26th Chinese Control Conference (CCC2007)*, Zhangjiajie, Hunan, China, pp. 5-506 – 5-510, 2007.
26. W.H. Tang, **A. Shintemirov**, Q.H. Wu, Transformer Dissolved Gas Analysis Using Least Square Support Vector Machine and Bootstrap, in: *Proceedings of the 26th Chinese Control Conference (CCC2007)*, Zhangjiajie, Hunan, China, pp. 5-482 – 5-486, 2007.
27. **A. Shintemirov**, Q.H. Wu, Transfer Function of Transformer Winding For Frequency Response Analysis Based on Traveling Wave Theory, in: *Proceedings of the International Control Conference (ICC2006)*, Glasgow, Scotland, 2006, p.54.

❖ BOOKS AND BOOK CONTRIBUTIONS

1. **A. Shintemirov,** *Intelligent Modelling and Condition Assessment of Power Transformers*, LAP LAMBERT Academic Publishing, ISBN: 978-3659357862, 2013. http://www.amazon.com/Intelligent-Modelling-Condition-Assessment-Transformers/dp/3659357863/ref=sr_1_1?s=books&ie=UTF8&qid=1366913057&sr=1-1&keywords=shintemirov
2. **A. Shintemirov,** W.H. Tang, Z. Lu, Q.H. Wu, Simplified Transformer Winding Modeling and Parameter Identification using Particle Swarm Optimizer with Passive Congregation, *in: Mario Giacobini d(s). Applications of Evolutionary Computing, Lecture Notes in Computer Science 4448*, Springer-Verlag, 2007.

❖ PRESENTATIONS

1. **A. Shintemirov**, W.H. Tang, Q.H. Wu, Modeling of a Power Transformer Winding Based on Frequency Response Analysis Using Evolutionary Algorithms, *Presentation at Workshop on Variable Frequency Diagnostics: Dielectric response and FRA*, Stockholm, Sweden, 2007.

❖ THESES

1. **A. Shintemirov**, *Modelling and Condition Assessment of Power Transformers Using Computational Intelligence*, Ph.D thesis, The University of Liverpool, UK, 2009.
2. **A. Shintemirov**, *Development of Measurement Microprocessor Devices and Balancing Methods of Single-Phase Ground Fault Current in the 6 – 10 kV Electrical Networks.* Candidate's (Ph.D) Degree in Technical Sciences Thesis, Pavlodar State University, Kazakhstan, 2003, (in Russian).
3. **A. Shintemirov,** *Development of a Control System for a Passenger Elevator,* Engineer's Diploma Thesis, Pavlodar State University, Kazakhstan, 2001, (in Russian).